# Seismic design of structures-

A single storey building has a rigid roof diaphragm as shown in Figure. Lateral forces in both the directions are resisted by shear walls. The mass of the roof can be considered to be uniformly distributed and neglect the weight of the walls. The other information is as follows.

Total Shear V = 100 kips in NS direction

Wall Rigidities Ra = 300 kip/inch

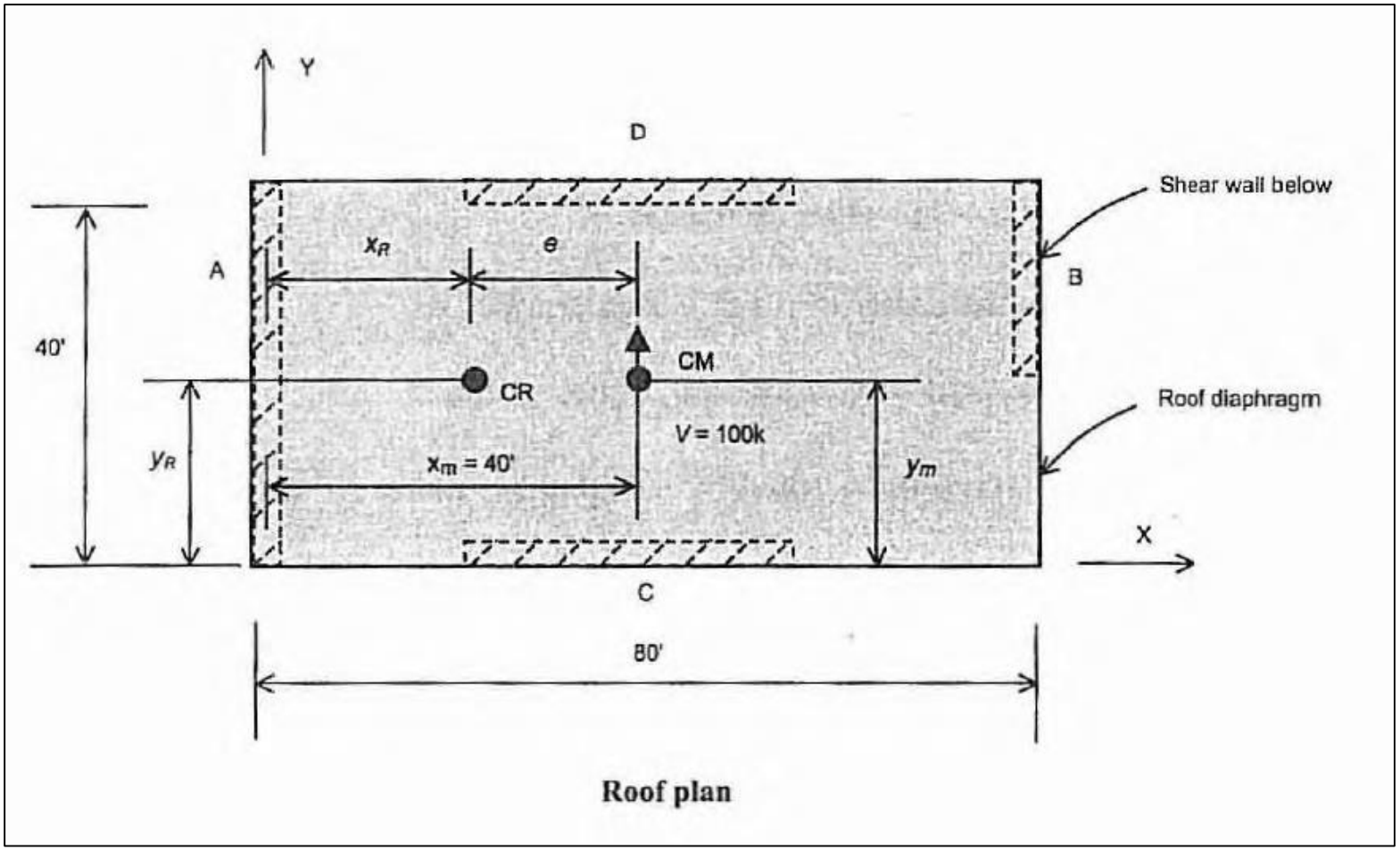
Rb = 100 kip/inch

Rc & Rd = 200 kip/inch

Determine:

Eccentricity and Rigidity properties, Direct Shear in Walls A and B, Plan irregularity requirements, Torsional shear in walls A and B, Total Shear in walls A and B.

# Seismic design of structures-




Roof plan

# Seismic design of structures-